The Logger's Bark
RADIO CLUB of TACOMA

JULY 2023 VOLUME 20 ISSUE 07 ©Radio Club of Tacoma W7DK

FROM THE EDITOR!

Hello again, it's the end of July and that's time for yet another fun filled issue of The Loggers Bark.

This issue is a bit smaller than the mega field day issue last month, but we still have field day photos trickling in and we will be using those as space permits over the upcoming months.

In the meantime, hopefully everyone is having a nice summer,

especially considering how many folks out there in the USA are

having miserable weather with excessive heat, major storms and hurricane season looming over the immediate horizon for all our friends and neighbors on the east coast.

We are too late it seems, for immediate changes to occur, but when the water in the Atlantic ocean off the coast of Florida is at or about 100 deg F, right before the start of hurricane season, that should be a huge hint that we as a nation / world need to start paying attention to our scientists and not the politicians.

At this stage in our civilization, if we don't stop and take stock of our shared situation our children and their children are literally

going to be: "In a world of hurt!" as our parents used to say.

OK, Editorial rant over, now back to our regularly scheduled ham radio newsletter.

If you still have pix or stories to send in, please do. We can usually squeeze them in somewhere!

Thanks and 73!

Gary WG7X

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Radio Club of Tacoma

Board of Directors Meeting Minutes

July 5, 2023

Meeting call to order at 7:01pm by President Mike W7XTZ

Officers and Directors Present

President: Mike Mikuchonis W7XTZ

Vice President: Adam Barbera W2NCC

Secretary: Mike Drorbaugh W7MKE

Treasurer: Steve Dightman AF7YD

Board: Bruce Hanson WE7P

Board: Paul Matney W7PFU

Board: Doug Schafer AB7DG

Board: Red Cranefield WB7EC

Board: Phil Pia K7PIA

Quorum

A quorum of the Board was present and a total of 16 members attended in person or via zoom. The attendance list is attached.

Silent Key or Illness?

It is reported that Worth Gurley W7WG is now in hospital, with no other information reported about his condition. Phil Shideler's (KC7PS) wife passed away recently after battling with a chronic illness.

Approval of Minutes of June 7, 2023, RCT BOD Meeting as Distributed:

Without objections the minutes of the last Board Meeting were approved as distributed. Approved Minutes of Board Meetings are available to club members on our website under the governance tab.

Secretary's Report (W7MKE)

Mike W7MKE reported that just before last month's Board Meeting we received an invoice from the DNR for our Crawford Mountain lease for the full commercial rate of $3,500. He was able to contact them and received an email saying it was a computer-generated invoice and was not correct, we only need to pay the usual $100.
We received our 2024 Property tax valuation for 2024 Taxes, and it is down about 4.4% from last year.
Mike reminded everyone that he would lead a review of our Policies (formerly called Standing rules) beginning July 13th during a 6pm Zoom Meeting. Please let Mike know (bentneedle@comcast.net) if you wish to help.

Treasurer's Report (AF7YD)

Treasurer Steve AF7YD submitted a written financial report that is attached to these minutes. Financial reports once approved by the Board are available to the membership at our website as part of these minutes. Steve mentioned that to date expenses are about $XXX more than income with the big expenses being Insurance, power cord replacement, and clubhouse repairs.

Committee / Reports

Membership (W7XH/K7GRS)

No actual report as Mike W7XH is on vacation. Our database shows that membership is at 309.

Training (AD7AB)

The next technician class training is scheduled for October. Dave N7HT finished his general class training at the end of June.

Info Tech and Website/ Weds Workshop (WB4SPB)

Randy WB4SPB reported that all (computer) systems are nominal. No fourth Wednesday agenda is decided.

HF Operations (K7PIA)

Phil K7PIA reports that the Flex is out for service and the Elecraft is in its place now. The Icom-7610 is working well and is where the Elecraft used to be. For contests see www.contestcalendar.com. There is still work ongoing on the VHF/UHF station. Plans are to keep the Elecraft as a spare radio. Dan KD7SV reports that repairs of the Drake LB-4 amplifiers are ongoing.

Tower/Repeater Ops (N7OMS, Adam W2NCC)

Adam W2NCC reports that work on the clubhouse tower will be in three phases. 1st general maintenance of some components not fully weatherproof. 2nd install new standoffs for the 40- and 80-meter antennas. At that point in Adam's report, he was interrupted and asked about tower galvanizing which he said it was scheduled to be part of a grant request, if possible. Discussion got general and Adam did not say what the third phase was going to be. Al N7OMS reports that we can now ground the main tower and we need to do bonding at the Bates site along with moving the repeaters from clubhouse to Bates. These projects are on hold until Nick K7MO is available.

Facilities Management (W2NCC)

Adam W2NCC reports that the gable ends of the clubhouse and the fascia and soffit work is all done. There is some touchup painting yet to do. The reroof of the garage was discussed and Adam moved for authorization of up to $1500 for reroofing the garage. The estimate for materials is $800 - $1000 and we have donations of $500 pledged. Without objections the motion passed.

Dan KD7SV wanted the board across the window in the museum to be removed. It was used to anchor ladders during clubhouse repairs and Adam said he'd remove it after the meeting. Adam reported that work is ongoing on the camera system. Adam requested guidance on what to do about cleaning the carpet in the club. President Mike suggested we wait and or do it ourselves. The consensus seemed to be to do it ourselves with

rented machinery. There was no statement of who or when it would get done.

Property Management (WB7EC)

Red WB7EC stated that we received $213 from items sold at Sea-Pac. Items on the disposal list are from Jim K7SSS (SK) estate. Red moved that PMT be allowed to dispose of the items on the disposal list.

Motion was seconded by Doug AD7DG. Discussion: Steve AF7YD wanted to keep the Arrow antenna to work satellites because it could be used by members who like to do that kind of stuff. PMT disposal does not necessarily mean the items will be sold so if there is a club need PMT can give it to those that might need it. Red indicated that he would survey committees to see if there is a need for any of these materials. Motion passed to dispose of the items on the list.

Red told us that the prices for PMT articles for sale went up to the Mike & Key pricing after three months of being offered at reduced pricing to club members. See PMT list at our website.

Museum (KD7SV)

Dan KD7SV said he'd discussed the Drake amplifiers during the HF report. Next Wednesday July 12, Dan will be at the clubhouse early to take part in a special memorial event, the 24th anniversary of the end of short-wave broadcasts of Morse Code. On July 22, the Maritime Museum will send out messages using the enigma (WWII German code) machine. A decode program is available online.

Dan reports that the results of the Classic Exchange CW were posted and W7OS did well. See www.classicexchange.org for more specific information.

General Meeting (W7UUU)

Dave W7UUU reported that the July meeting is typically about Field Day review.

Mike W7XTZ reported he'd received an email from Monte Simpson congratulating W7DK on our FD operations.

Unfinished Business

- **Update on Grant writing**

Adam W2NCC reported that he has a couple of items that could be used for a grant. He's working with committee heads for the repeater and tower maintenance. He's asked both Adam N7OMS and Nick K7MO to write up the list of materials needed to meet those needs. Possibly we may also do something on our library.

- **Update on insurance inventory**

Steve AF7YD reports he hasn't moved on that as yet was waiting for FD to get over.

- **Update on Training video.**

Al N7OMS reports there are lots of YouTube videos about the Flex but perhaps a video on the HF room use in general may be needed. There was lots of discussion about what guides may be needed.

New Business

Nothing offered.

Activity Reports, Discussion Topics, Announcements

• FD seemed to be successful with lots of different operators. Steve AF7YD mentioned he got some new members helping him to set up the 20m beams. At FD Doug AB7DG did a training class on Winlink, he guesses about 20 people participated. Lots of cross training and new experiences.

Randy WB4SPB reports 28 operators at FD. Nathan N7NW made 123 CW contacts and Dan Ransom K7MM made about 20% of all the contacts.

Don't forget to upload your FD photos to the W7DK on the NAS M-drive. You can do this from any computer in the clubhouse. Also send them to Gary WG7X for the Loggers BARK.

• Dave W7UUU reports the Kirkreit picnic is August 6th at Ft. Steilacoom Park as before.

Adjournment at 8:19pm

Submitted by Secretary Drorbaugh W7MKE

Some additional Field day pictures will be inserted into the newsletter from time to time. Here we see above left, Bruce WE7P, Max KK7HAY and Mike W7MKE hard at work getting Max set to do ten meters on Saturday. Right, Dan KD7SV and assistant setting up one of the club's "Rocket launcher" antenna towers.

Radio Club of Tacoma General Meeting

Minutes July 12, 2023

Officers and Directors Present

President: Mike Mikuchonis W7XTZ

Vice President: Adam Barbera W2NCC

Secretary: Mike Drorbaugh W7MKE

Treasurer: Steve Dightman AF7YD

Board: Doug Schafer AB7DG

Board: Phil Pia K7PIA

Board: Paul Matney K7PFU

Board: Red Cranefield WB7EC

Board: Bruce Hanson WE7P

Meeting Called to Order at 7 pm by President Mike W7XTZ

Flag Salute Led by Leonard KA7NWF

Quorum? (10% of membership required to "conduct business")

A quorum was not present. 28 members and visitors attended the meeting. The attendance list is attached.

Welcome and Acknowledgement of New Members and Visitors (Please introduce yourselves)

• Mike Weber KJ7CSK a technician for a couple of years, wants to get do more with the hobby. Is interested in SDR.
• Sully Zamal expressed interest in the hobby and wants to see more of what it is about.
• Rick Krog AG7RX is a returning member (RCT 2870) who was previously active in 2019-20 and when Covid hit, he bought a mobile home and went on tour crossing the US 5-times.

Health and Welfare/Silent Key & Illness

• Phil Shideler KC7PS; his XYL has passed away and services were at Sunset Bible Church 7920 44th St W, University Place, WA 98466 Saturday July 15th at 3PM.
• Worth's daughter reports via Facebook on Worth W7WG: He went to the hospital ER on Sunday July 2nd going into septic shock. He had MERSA which had spread. He spent a week in ICU with many difficulties. He has improved and is moved out of the ICU into a regular room where he continues his recovery.

PROGRAM: Dave W7UUU shared a Mike Ritz W7VO video on the history of call signs.

Mike W7VO is our ARRL Northwest Division Director.

Secretary's Report

- Mike W7MKE reports that we received our invoice from the DNR for the Crawford Mountain repeater lease.
- Originally, they sent one for $3,500, the full commercial rate but we found out that was a computer-generated mistake, and our actual bill is the usual $100.)

• We have received our 2024 property valuation from the county, and it is down about 4.4% from last year.

• Tomorrow at 6pm W7MKE will host a Zoom meeting to begin a review of our club policies (formerly called standing rules). Several areas need review as the last revision was 2013.

Treasurer's Report

Steve AF7YD reports all bills are up to date. To date we have spent $XXX more than our income. Steve expects we will have a slight deficit of spending over income as the year ends primarily due to clubhouse repairs and burglary losses being much more than in the last few years. A question asked was: do we receive grants? This is being explored by

Adam W2NCC, Steve AF7YD and others. A primary source is ARDC for grants who did a presentation at Sea-Pac.

Committee / Activity Reports

Membership (W7XH/K7GRS)

The membership database lists 309 members and there is at least one pending.

Training (AD7AB)

Stephen AD7AB reported via email: We had as many as 7 people sign up for a tech class that was to be held at the Veteran's Administration hospital in Port Orchard. Upon arrival at the facility there were 3 people who had last-minute cancellations. Due to the urgent needs of the hospital we decided to go ahead and hold the class on both Monday & Tuesday this week, July 10th & 11th. The class went very well, and we will be having a test session for the 4 personnel that were able to attend on Thursday, July 13th, from 9am – 12pm.

VE Report (AC7WW)

Leonard KA7NWF reported for John AC7WW as follows:

Tuesday July 11, we had four candidates at the Clubhouse. Two new technicians joined the amateur service, one candidate passed element 2 and 3 to become a general and one candidate upgraded to extra.

Thanks to the following for their service and time.

Leonard, KA7NWF, Rich, KK7VH, Rob K7TGU and Stephen, AD7AB.

The next scheduled test session is Tuesday, August 8, 2023

HF Operations (K7PIA)

Phil K7PIA reports that the Flex developed an antenna port problem and AL N7OMS sent it in for service. The Elecraft is being used instead of the Flex. The new Icom-7610 is where the Elecraft used to be. The Drake amplifier is being repaired by Dan KD7SV. The NAQP RTTY is coming up this Saturday. August 5th is NAQP CW. No major DX reported. Work is ongoing with the VHF/UHF station with interfaces and computer programs for EmComm traffic being completed.

Repeater Operations (N7OMS)

Nothing reported.

IT Report (WB4SPB)

Randy WB4SPB reports all (computer) stations nominal. Our website is updated with the last three months of Board minutes.

Museum (KD7SV)

Dan KD7SV reports tonight was the" night of nights" event from Maritime Museum at Pt. Reyes, CA. Dan was unable to break into the pileup using the museum equipment.

As our program included significant changes to Amateur Radio after the sinking of the *Titanic*, Dan included this bit of historical trivia: There were two wireless operators on the titanic: Jack Phillips, the senior operator, who went down with the ship and Harold Bride the junior operator, who was injured but was rescued by the *Carpathia* and assisted with wireless operations on the rescue ship until the *Carpathia* made port in New York where he was met by Marconi himself. Harold served in WWI in the Merchant Marine and retired in 1922. He passed away in 1956. Harold Bride - Wikipedia.

Property Management (WB7EC)

Red WB7EC reports that in June PMT took in $213 due to sales at Sea-Pac. There are new listings on our website. Prices of items that had been on sale to members after Mike &Key have gone back up to M&K pricing.

Facilities Management (W2NCC)

Adam W2NCC reports that all clubhouse repairs on soffits/fascia are completed but for a bit of painting. We are planning to reroof the garage probably in August-September. Tower projects include updating of the equipment. The installation of the camera system is ongoing and new smoke detector models are in hand and ready to install.

4th Wed. Night Activity (WB4SPB)

No program decided yet.

Bark Editor (WG7X)

No report.

Unfinished Business

No unfinished business

New Business

Nothing offered.

Announcements/show and tell/ traffic & Tuning.

• Kirkreit Picnic August 6th at Ft. Steilacoom Park shelter #1 as before. Set up at 10:30 and the picnic starts at 11:30 am. The park is a smoke-free area. Instead of a trivia contest we will have a RINGO game. It is a potluck event, but the club supplies hamburgers and hot dogs. Does anyone want to have a bunny hunt? About 5 people showed interest.

• Secretary Mike will begin review of our RCT Policies tomorrow at 6pm via Zoom. Tune in and contribute to making the updates.

• Dave W7UUU reports he contacted Macau XX9ET, an administrative region of the PRC. Dave is also actively working at POTA now. He tries to get 10-CW, 10-SSB and 10-FT8 contacts each outing. Do you recall all those portable antennas Dave reviewed? He is using those.

• WE7P reports the Democratic Republic of Congo is on the air.

• Doug AB7DG asked if the club has a crimper for RG58 coax. We do have one, see Adam W2NCC.

Adjournment at 8:12 pm.

Submitted by, Michael Drorbaugh –W7MKE Secretary

QRZ

by Dave W7UUU

News you can use!

This month's topic: How does QRZ work?

Hello everyone and welcome back to the QRZ News You can Use column! As a staffer of the largest ham radio site in the world and Director of the QRZ Forums, every month I hope to bring you behind-the-scenes info on the workings of this great web site that most hams use in one way or another.

So how exactly does QRZ work? Is it an HTML website? Is it a database of a million ham radio call signs? Is it a discussion forum? Well, it's obviously all of these things—but probably not in the way most folks might imagine.

The site founder, Fred Lloyd AA7BQ, has been a high-level computer and web programmer for many years. When he created QRZ.com, the website as opposed to the CD ROM originally sold with ham call signs in database format, he found there was no pre-made package of software to do all of the things that he envisioned the site to be. So he had to create it.

QRZ.com consists of an overall HTML "wrapper" that creates the look and feel for most of the site. But the database system, the forums system, and even the QRZ Trivia Quiz system, among many others, all consist of various software packages—some commercial, some written by Fred himself.

The database is entirely written in C++ and uses MySQL, Structured Query Language, for the storing and processing of the relational database that holds and serves up the nearly one million amateur radio call signs all day every day. There are a number of access points within the QRZ website to gain access to this data, as well as from logging software such as N3FJP, HRD, and many other programs.

The forums software is currently XenForo, one of the leading platforms for discussion forums on the internet. Even though it is color-coded to match the home page of QRZ and appear to be a seamless extension of the QRZ pages, it is in fact a completely independent software package that has been cleverly melded into the overall HTML structure of the site.

Many smaller systems and functions on QRZ are also coded software, directly written by Fred or by QRZ IT Engineering Manager Stephen VA7STV (also licensed as MW3EOY in the UK and VE7CJ in British Columbia). An example of this would be the QRZ Trivia Quiz—a daily trivia contest that in fact is one of the most popular features of the site (and coincidentally, I've been the editor of the trivia quiz section of QRZ for a number of years, dealing with updating questions, fixing errors that are found by users, and soliciting new questions from users).

Perhaps the biggest custom-code software package is the very popular QRZ Logbook and Awards system—code written entirely by the QRZ software team… a project that is ever-evolving and has taken years to perfect. And again, it is designed to match the look and feel of the entire site, so users never feel like they are leaving one application and entering a new one.

There are many other sub-systems in use all around the site, most of which were written by Fred or

Stephen, and seamlessly integrated into the overall look and feel. Or in some cases, residing invisibly in the background—apps for doing everything from editing advertisement graphics, managing subscriptions, and more than a dozen other functions.

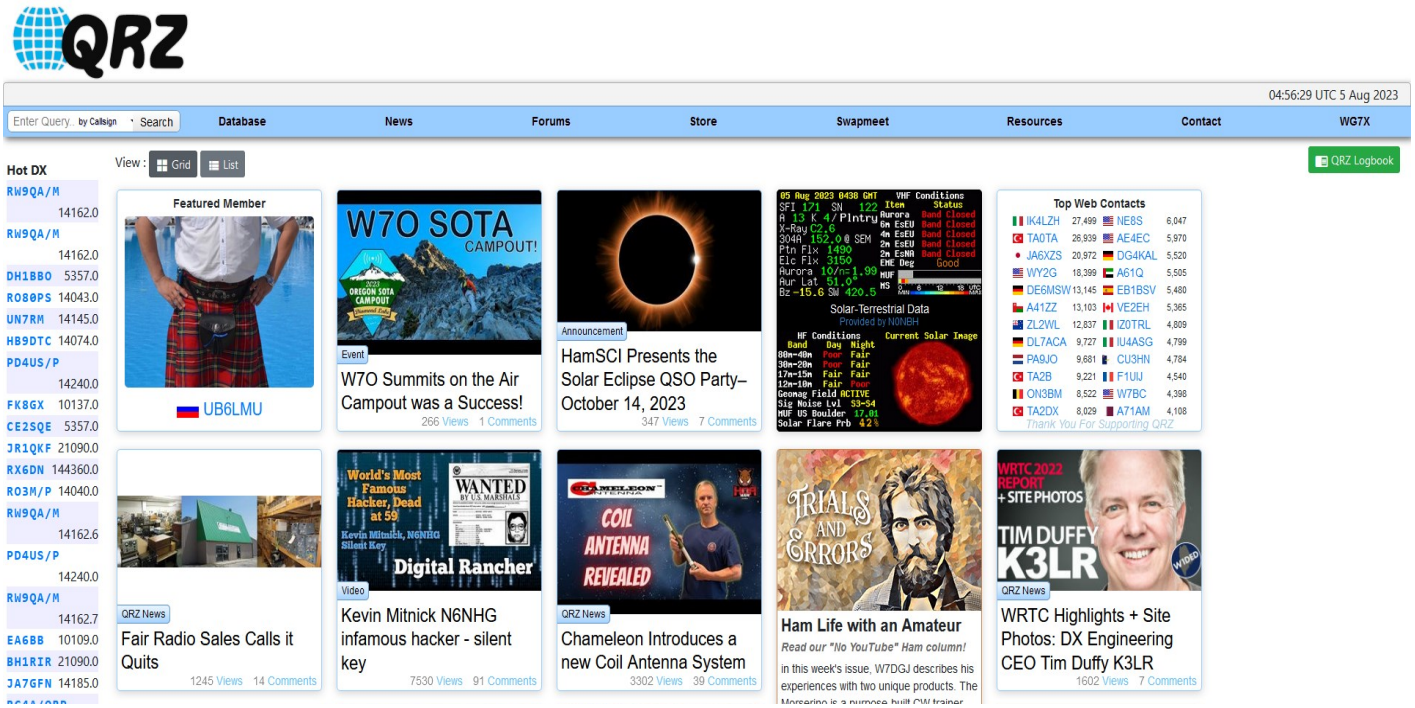
Lastly there is the overall site "user management system" that allows moderators and administrators to keep tabs on all of the subscribers and members—dealing with forgotten passwords, sussing out spammers and scammers, and occasionally managing user bans when necessary.

But the goal is simple: keep the user experience such that they never feel they are hopping from app to app—everything looks the same regardless if playing the Trivia game, looking up a call sign, viewing a user's profile page, or applying for operating awards.

So that's it for this month… next month I'll explain just how the call sign database works: how call signs get entered, modified, or removed.

Until then 73!

Dave W7UUU



MIKE W7XH HAS A REMINDER FOR US ABOUT THE UPCOMING BIG EVENT OF THE YEAR, SALMON RUN! DETAILS BELOW.

CQ CQ CQ

CQ SALMON RUN CQ SALMON RUN

SALMON RUN

WHISKEY SEVEN DELTA KILOWATT

Annual Fundraiser

Club member donations helped to pay for much needed maintenance and repairs to our club house. Of course we still have several projects that we would like to complete.

Last year we had 74 members participate in Salmon Run. Donations were very generous. Thank you for your support!

I want to challenge our club to even greater participation. Of course I would love to see all 309 members involved in our fundraising efforts. That might be unrealistic, but could we get 150 to 200 members participating? I think so.

Will you help get the word out? Pledge forms can be downloaded from the website. I will have Randy place the link on the home page. I will have printed forms available at the clubhouse in the kitchen.

1600Z Saturday, September 16, 2023 is the start: be there, or be...

Thanks, Mike W7XH

Rich / Rickey / Radio-man / KR7W has an article all about DF'in!

IT'S DIY TIME…

The KR7W Hutch of Hidden Transmitter Hunt

Bunnies are becoming aged. The old timer bunnies are made from Icom handy talkies from about 1982 and contain a 5 pound Sealed Lead Acid battery which makes it inconvenient to carry them very far.

Enter some slightly new technology: -not just for new hams.

At Amazon.com, Baeofeng UV5Rs are down to $20 and their Extra Strength 3800 m/A batteries are the same price. For about $40 a long lasting hidden transmitter can be built. But, how to control it? Or how to send the signal plus ID for a certain time, then shut down for a certain time, and then start back up? Arduino Nano (3 for $20 at Amazon) to the rescue.

This article hopefully reveals my (so far) successful attempt to build a reliable, powerful, Hidden Transmitter, aka Fox, aka Bunny that will run for the duration of the hunt.

The Baeofeng part is easy– insert the charged 3800 a/H battery, set the frequency, set Low Power, set the LOCK. The Arduino controller was challenging. I do not know the C++ Programming language to create a program of my own. But persistent Google searches found a Fox Controller Sketch (an Arduino program file) that has simple wiring and a well documented sketch that told me what to change to fit my needs.

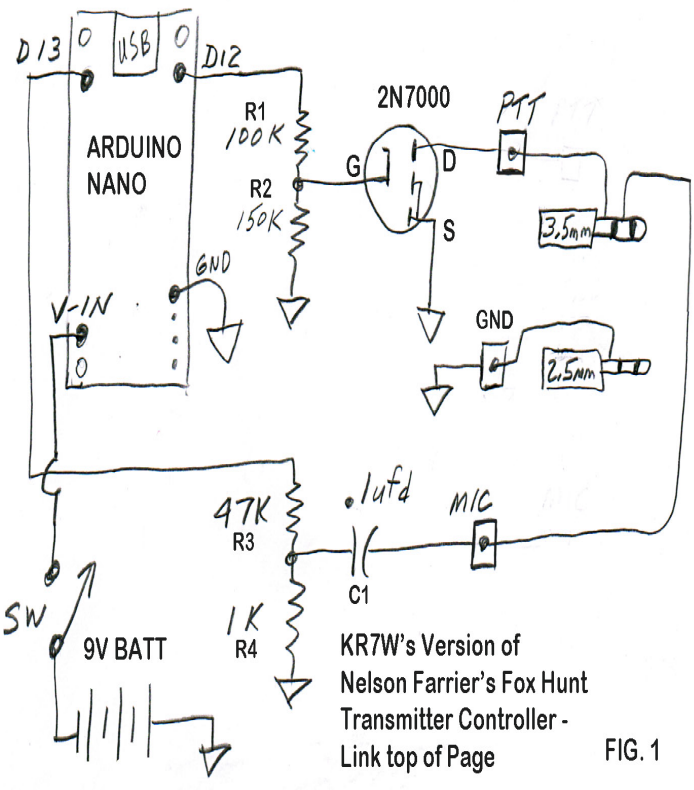
The Block Diagram / Schematic with some explaining:

Arduino is programmed to operate Push To Talk and play a user defined Morse Code sequence for 33 seconds.

Pin D12 outputs +5V when this happens. +5 is divided by R1 and R2 to place approx 2.5V on the G of 2N7000 transistor. A GND then appears on the D lead– which is PTT. PTT is wired to the 3.5mm plug Sleeve lead.

The Morse Audio appears at Pin D13. The Audio Level is a 5V square wave that is divided (attenuated) by R3 and R4– to emulate the level of a Baeofeng Speaker Mic. Capacitor C1 blocks the DC voltage from the Baeofeng. Transmit audio is applied to the Ring lead of the 3.5mm Plug.

https://projecthub.arduino.cc/nfarrier/auto-keyer-for-radio-fox-hunting-693269



KR7W's Version of Nelson Farrier's Fox Hunt Transmitter Controller - Link top of Page

FIG. 1

A regular 9V transistor battery through a small toggle switch turns the controller ON OFF.

The 9V lead connects to the Arduino at the V-in pin. GND for the Baeofeng's

PTT and Mic Audio In is the single purpose of the 2.5mm Plug.

I've noticed the hardest part of programming Arduinos is 'Getting the Sketch in the

Arduino'. Most people tell me that. I encourage you to watch some YouTube videos

or read about it at: Getting Started with Arduino products | Arduino Ask around at your

Radio Club. ***The sketch I used is at the URL at the top of the Fig. 1 Schematic.

I'd like to tell you that customizing the Arduino to meet your Bunny Hunt needs is

EASY– nah. But, it's not too difficult if the notes in the sketch are carefully read.

An example is Changing the Morse Message. Note: If the sentence is preceded by a

double slash– what follows is the explanation the programmer left for you.

```
// the loop routine runs over and over again forever:
void loop() {
digitalWrite(relay, HIGH); // turn the relay on (HIGH is the voltage level)
delay(1000); // wait for a second, 1000mS
SendText("A A A A A A A A A A DE N7PI");
delay(1000); // wait for a second
//SendText("N7PI FOX HUNT");// alternate text to use
//tone(TonePin, frequency); // send 7 sec tone
//delay(7000);
//noTone(TonePin);
//delay(1000); // 1 seconds transmit w/o tone
```

Find SendText, The text between the quote marks is what will be sent in Morse Code.

The amount of text here determines how long Push To Talk is operated for. I added

this amount of As to make the bunny stay on for 33 seconds. Experiment to meet

your needs. Change the sketch then reload it into the Arduino.

Here, digitalWrite(relay, LOW) turns OFF Push to Talk. Then delay(cycleDelay) makes

the Arduino wait for 15 seconds (defined elsewhere). It does this command twice for

a wait time of 30 seconds.

```
digitalWrite(relay, LOW); // turn the relay off by making the voltage LOW
delay(cycleDelay); // wait for cycle time (because the largest value is 16383)
delay(cycleDelay); // wait for cycle time
```

The following photos show how I went about creating a Bunny Controller that works

for me (and hopefully you).

Electronic parts are shown on the schematic-block diagram above. A Mint Tin ended up being the perfect size for the Arduino and the 9V battery. My non odorous mint tins, as well as the Arduino, battery connector, small toggle switch, 2N7000 transistor, Audio Plugs, hook up wire, solder, soldering tips, resistors and capacitors conveniently came from Astronaut Bezo's Amazon dot com.

Fig 2 is the final product. A piece of 5mm scrap plywood (Fig. B) was cut into 2 pieces and glued together. The smaller piece becomes the divider to hold the battery in place. The Arduino is glued to the plywood with E6000 hobby cement.

The notch Dremmeled into the plywood holds the top in place under the switch.

A piece of Printed Circuit Board, (Fig. A) with Dremmel cuts creates Manhattan style solder pads for wires to attach– as well as a ground plane to quickly make a GND connection.

FIG. B

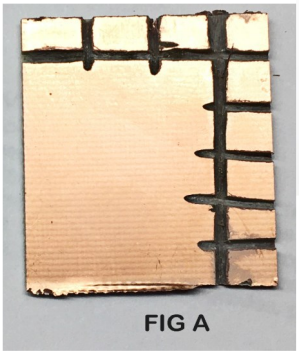


FIG A

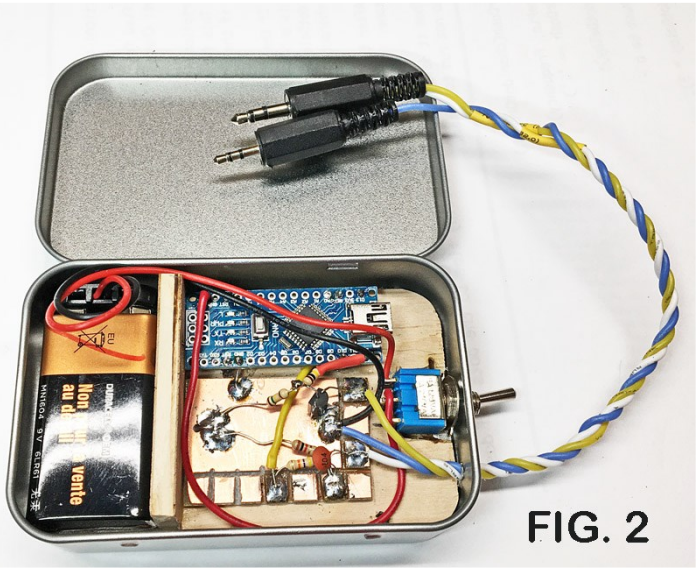


FIG. 2

Note the wire on the under side of the plywood platform. It feeds through holes and soldered to the Printed Circuit Board. This provides a GND connection to the non-minty Tin Enclosure.

Normally I'd screw down the plywood platform to the enclosure, but at some point the platform will need to be removed for re-programming. Accidental Engineering provided the plywood platform to easily slide out towards the bottom of the tin, without removing the battery, for access to the USB Jack.

You've nearly reached the end of this article. Got Questions? Email me. If you want to build one of these Bunny Hunt Gizmos, and need a transistor, resistors, a capacitor, piece of Printed Circuit Board like I used… Here's my special offer: Send me a 2.5mm and a 3.5mm plug and a Self Addressed Stamped envelope– and I will send you the mentioned parts. Search Amazon for: TRS Male Plug 3 Pole Stereo 2.5mm / 3.5mm Solder to find out more.

As Always– thanks for reading this far. 30, 73, Happy Trails, KR7W

The W7OS Museum wins WWII By Randy WB4SPB

On July 22, the W7OS Antique Radio Museum's intercept operators participated in an event sponsored by the Marine Radio Historical Society (MRHS), in which coast station KPH transmitted an encrypted message originally sent by a German U-boat during World War II. The task was to copy the message and decrypt it using an online simulator of the German encryption machine known as ENIGMA. Alas, the Museum does not count among its holdings an actual ENIGMA code machine.

Message received

The message was intercepted beginning at 2000z (1 PM PDT) on 12808.5 KC using our Collins R388-URR (vintage 1950). KPH was QSA 5 – a very nice signal.

DONITZ FR LOOKS 2013Z OKTOBER 7 = 100 = DBK WSE =

EVJMZ VISFP CVCBJ SNQDF CVNPL

CNFFO EVSLH YOSKU EUWPB QLRGR

XRGDW OFQCQ KZRJT AUOLG DVSGM

GJFRR OZLRC ANKRI NNTCG WVLRC

The preamble shows the message is addressed to DONITZ and is from LOOKS. **Karl Donitz** was a German admiral who Hitler later designated as his successor (just before Hitler committed suicide). Donitz was tried at Nuremberg, was convicted of war crimes, served 10 years in prison and died in 1980. **Hartwig Looks** was the commander of U-264. His boat was eventually sunk by British ships, but he and his crew survived. Looks died in 2005 at the age of 88.

The preamble next contains a date, a letter check -- the message contains 100 characters -- and finally two groups of three characters:

DBK: this is the initial start position for each of the three ENIGMA machine rotor wheels, to be used in decrypting the following three characters. This is plain text.

WSE: this is the *encrypted* start position for each of the three rotors, to be used for decrypting the body of the message.

Message decoded

But before these rotor wheel start positions can be used, we must refer to a codebook for other settings. (Note that the codebook page was supplied by MRHS, so we did not need to capture a U-boat to obtain it.)

The date **OKTOBER 7** leads to this line from the codebook page:

The codebook line broken down:

7.	**Day of the month**
II III I	**Rotor order**
06 12 03	**Ring settings for the three rotors**
BG FS TH JE VK PI CU QA OD NM	**Plugboard connections**

aty mbb mvo jmz	**Information used to confirm this is the right codebook info**

The first code group in the message body **EVJMZ** ends with a group of three letters that appears in the last column of the codebook line (**jmz**). This confirms we have the right codebook line. The first two characters of this initial code group are not meaningful. **This code group is counted in the letter check but is NOT part of the message text and will not be decrypted.**

We set up the (simulated) ENIGMA device by referring to the codebook line and:

1. Placing the rotors in the proper order (rotor **II** first, rotor **III** second, rotor **I** last). The rotors are labeled with 26 letters corresponding to positions they can assume.
2. Initializing the "ring setting" for each rotor (the numbers correspond to positions in the alphabet, so **06 12 03** becomes **F** for the first rotor, **L** for the second, **C** for the third). This determines when the rotor will cause an adjacent rotor to change position.
3. Making the plugboard connections: **B** connects to **G**, **F** connects to **S**, **T** to **H**, and so on.

Now we can begin to decrypt the message.

1. We set the rotor start positions to **D B K** (the first 3-letter group in the preamble).
2. We decrypt the second 3-letter group by typing those characters on the keyboard. **W S E** decrypts to **N I Y**.
3. We set the rotor start positions to **N I Y**.
4. We decrypt the body of the message by entering the received code group characters (skipping the first five).

The decrypted message is as follows (spaces have been added for readability):

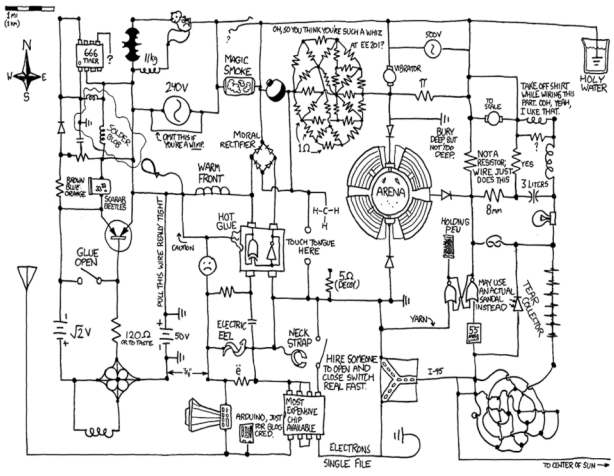
FORCED TO SUBMERGE DURING ATTACK X DEPTH CHARGES X LAST ENEMY POSITION GRID AJ NINE EIGHT SIX THREE X I AM FOLLOWING

Thanks to Kevin McGrath K6TOP, MRHS Crypto Coordinator, for additional information revealing that this message (originally in German, of course) was intercepted but never decoded during the war. It was encrypted using an advanced version of ENIGMA that the Germans began using in 1942, to the consternation of the code breakers in Bletchley, England. It took the British 10 months to figure out how to break ENIGMA model 4 encryption. The "Looks message" was finally decoded in 2006 using modern technology.

Someone has graciously translated to English and re-encrypted this message using the ENIGMA model 3, allowing us to employ the simulator mentioned earlier.

The W7OS intercept ops look forward to the next MRHS ENIGMA exercise.

Editors note: left, Randy contemplates the very complicated Enigma schematic. (Right) Fortunately, he was able to figure it out in time to get the decoded message to "The Appropriate Authorities"…



Maritime Radio Historical Society
OF AMERICA

Certificate of Cryptographic Achievement

This certificate is proudly presented to

W7OS Antique Radio Museum

In recognition of successfully decrypting the Enigma message sent by San Francisco Radio, KPH, on July 22, 2023.

Kevin McGrath
Cryptographic Coordinator

Richard Dillman
President

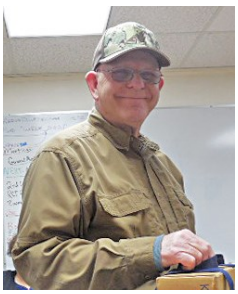
MARITIME RADIO HISTORICAL SOCIETY
OFFICIAL
MRHS
SEAL
KPH K6KPH

MAILBAG!

Today's mail had a contribution from Bob K7MXE. A bunch of pix of club members in the clubhouse. A veritable rogues gallery! All the pix are presented as received. Enjoy!

Adam, W2NCC

Al N7OMS



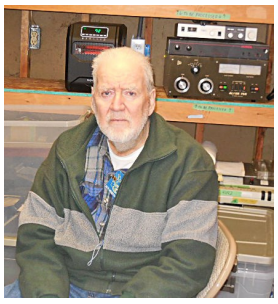
Bob AD7LJ

Dan KD7SV

Dave N7HT

Ellen AI7FP

Erik K7APO



Jack K7DBU

Bruce WE7P & Lloyd AG7CX

Max KK7HAY

Mike W7MKE

Mike W7XH

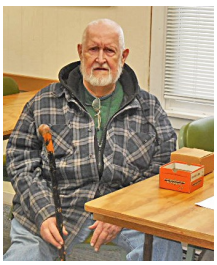
Nick K7MO

Nolan K7GBM

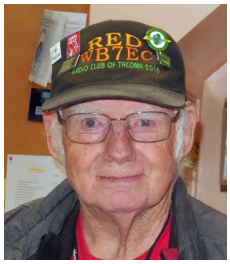
Paul W7GAN

Paul W7PFU

Phil KC7PS



PJ K7PH



Red WB7EC

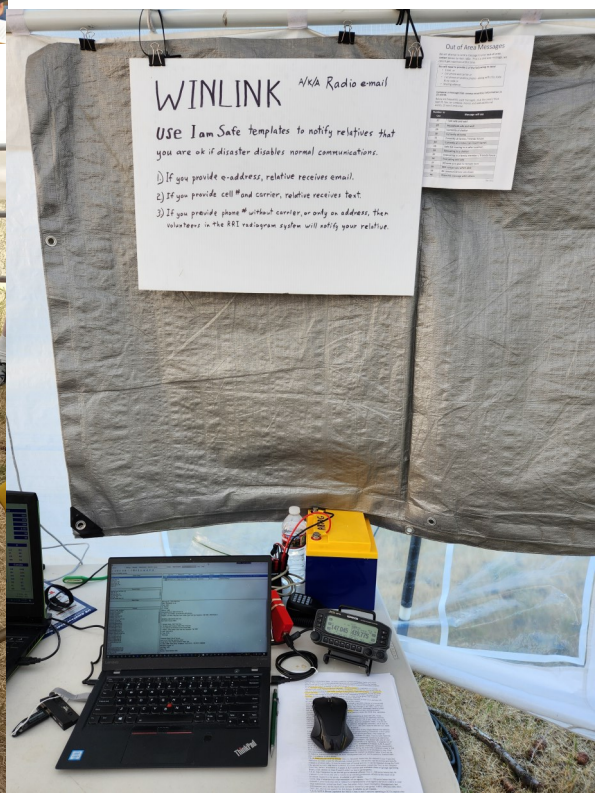
Stan K7DKK

Stephan AD7AB

Steve AD7VL

Walt, WA7SDY

Warren NG7G


WINLINK
a/k/a Radio e-mail
Use I am Safe templates to notify relatives that you are ok if disaster disables normal communications.
1) If you provide e-address, relative receives email.
2) If you provide cell # and carrier, relative receives text.
3) If you provide phone # without carrier, or only an address, then volunteers in the ARI radiogram system will notify your relative.

Commander Bob AD7LJ helps Max KK7HAY get set up for operation on ten meters during W7DK field day. Above: Winlink setup done by Doug AB7DG. Below, random guys at field day contemplating the universe...

In the next few months, you will see more random field day pictures culled from the files of our nice members who have sent in pix. Today's contributors are Doug AB7DG and Randy WB4SPB

The Mighty DK's!

Monthly QSO Report

Each month in the *Bark* the Radio Club of Tacoma recognizes the members and guests who have made non-contest QSOs using the HF stations at our clubhouse. Saturday Open House, especially, is a time when members have access to this equipment. Why not sit down at one of our operating desks and make a contact or two? Assistance is almost always available for those unfamiliar with the equipment, and if your license class doesn't permit HF operation, ask the denizens of the HF Room or the Saturday clubhouse host to help you find a suitably-licensed control operator to sit with you.

It's a feather in the club's hat for the call sign of **The Mighty DK** to be heard on the airwaves. So get on the air and get your name in the *Bark*! (Don't forget to enter your call sign as the operator into our logging program.)

Clubhouse QSOs July 1 through July 30, 2023:

- Mike W7MKE: 1
- John W7CBC: 3
- David W7GEL: 6

Do you need help with some area in ham radio?

Here is a place……. First is the listing of areas of support,

followed by a list of members' areas of interest.

Elmer Board

Do you need help with some area in ham radio?
Here is a place……. First is the listing of areas of support, followed by a list of members' areas of interest.

	Name/Call Sign /Phone Number/ Topic
1.Technical questions, Classes	Adam W2NCC 360-870-7894 (4,5,6,7,11)
2. Help with Code	Al N7OMS 253-495-9068 (10,12)
3. License Examinations	Dave N7HT 253-363-1692 (1,2,4,6,8)
4. Antenna and Station planning	Dave W7UUU 253-820-0890 (2,4,6,9) and more
5. Antenna and Tower erection	Gary WG7X 253-327-0503 (1,4,5,6,8,9,10,11,12)
6. Buying new or used equipment	Mike W7XTZ 253-405-8095 (6,8,10)
7. Equipment repair	Phil K7PIA 253-307-4781 (9,10,12)
8. Understanding and operating your equipment	Randy WB4SPB 253-761-9391 (2)
9. DX and Contests	Stephen AD7AB 253-212-9437 (1,3,4,12)
10. Club and ARRL activities	Steve AF7YD 253-988-0878 (4,5,10,12)
11. Using test equipment	
12. IRLP , Digital, SDR, ARPS, Winlink,Vara, Satellite	

The Club LINEUP

Club Officers

President: Mike Mikuchonis –W7XTZ w7xtz©w7dk.org

Vice Pres: Adam Barbera, W2NCC - w2ncc©w7dk.org

Secretary: Mike Drorbaugh W7MKE - w7mke@w7dk.org

Treasurer: Steve Dightman, AF7YD - af7yd©w7dk.org

5 Board Members

Bruce Hanson, WE7P - we7p©w7dk.org

Paul Matney, W7PFU - w7pfu©w7dk.org

Doug Schafer AB7DG©w7dk.org

Red Cranefield, WB7EC - wb7ec©w7dk.org

Phil Pia, K7PIA - k7pia©w7dk.org

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ARRL Liaison: Unassigned

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Membership Info: FULL (licensed) and ASSOCIATE (non licensed) membership is $35 per calendar year or $30 for Licensed Seniors (65 and over). Licensed family members at same address pay $20 each for the first two and are free for the third, fourth, and so on. Full-time students, licensed or non licensed, up to age 25 are $20 per year. Note: fees are applicable for the calendar year: Jan to Dec. Lifetime membership is 20 times the yearly fee you are eligible for. Lifetime memberships are calculated based on the FULL and ASSOCIATE rates.

www.w7dk.org [LINK] - For the latest and most current information on events and activities, visit the Radio Club of Tacoma Website.

Radio Club Repeaters

Central Tacoma: 147.280 + PL=103.5

Crawford Mountain 147.380 + PL=103.5 (E of Olympia © 1500 ft ASL)

Central Tacoma: 440.625 + PL=103.5

North Tacoma: 145.21 – PL=141.3